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REMARKS

This communication is intended as a full and complete response to the Final Office Action issued November 15, 2006. In view of the following discussion, the Applicants submit that none of the claims now pending in the application are obvious under the provisions of 35 U.S.C. § 103. Thus, the Applicants believe that all of these claims are in allowable form.

I. REJECTION OF CLAIMS 1-6, 9-20 AND 34 UNDER 35 U.S.C. §103

A. Claims 1-4, 6, 9-20 and 34

Claims 1-4, 6, 9-20 and 34 stand rejected as being made obvious by the Lathrop patent (United States Patent No. 5,701,427, issued December 23, 1997, hereinafter "Lathrop") in view of the Barker et al. patent (United States Patent No. 5,931,916, issued August 3, 1999, hereinafter "Barker") and further in view of the Ma et al. patent (United States Patent No. 5,920,725, issued July 6, 1999, hereinafter "Ma"). The Applicants respectfully traverse the rejection.

In particular, the Examiner's attention is respectfully directed to the fact that none of Lathrop, Barker and Ma teaches, shows or suggests the novel invention of re-attempting to send, by a server in a client/server object-based computing system, a packet of data including data that represents an object in the system to a client in the system, where the object includes data and functionality, as claimed by the Applicants.

The Examiner concedes in the Final Office Action that "Lathrop in view of Barker does not disclose the process wherein the object includes data and functionality ..." (See Final Office Action, Page 5); however, the Examiner cites Ma to supply the teaching for this limitation. The Applicants respectfully submit that Ma does not bridge the admitted gap in the teachings of Lathrop and Barker. In particular, Ma also does not teach sending (or re-attempting to send) an object (i.e., including data and functionality) from a first computing system to a second computing system. At most, Ma teaches sending a notification when a class (i.e., object definition) is modified at a central repository of programming object definitions (See, e.g., Ma at column 6, lines 19-22: "A notification mechanism is used to replace existing classes on client machines ...",

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emphasis added). This is not the same as sending an actual instantiation of a class, *i.e.*, an updated object.

Notably, Applicants' claims positively recite the step of re-attempting to send, by a server in a client/server object-based computing system, a packet of data including data that represents an object in the system to a client in the system, where the object includes data and functionality. Specifically, Applicants' independent claims 1, 9, 14, 18 and 34 recite:

1. A method for transmitting a packet of data from a first computing system to a second computing system, the first computing system and the second computing system being included in a client/server object-based computing system, wherein the first computing system is a server and the second computing system is a client, the method comprising:

identifying the packet of data using the first computing system, wherein said second computing system is listening, wherein the packet of data includes data which represents an object in the client/server object-based computing system, the object being identified as an object for which the second computing system has an interest in receiving updates, the object including data and functionality;

attempting to send the packet of data from the first computing system to the second computing system;

determining when the packet of data is received by the second computing system; and

sending an acknowledgment from the second computing system to the first computing system when it is determined that the packet of data is received by the second computing system, the acknowledgement being arranged to indicate that the packet of data is received by the second computing system. (Emphasis added)

9. A method for transmitting a packet of data from a first computing system to a second computing system, the first computing system and the second computing system being included in a client/server object-based computing system, wherein the first computing system is a server and the second computing system is a client, the method comprising:

a) attempting to send the packet of data from the first computing system to the second computing system, wherein said second computing system is listening, wherein the packet of data includes data which represents an object in the client/server object-based computing system, the object being identified as an object for which the second computing system has an interest in receiving updates, the object including data and functionality;

b) determining when the packet of data is received by the second computing system;

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c) identifying the packet of data as being successfully sent when it is determined that the packet of data is received by the second computing system; and

d) assuming that packet losses have occurred when it is determined that the packet of data is not received by the second computing system, wherein assuming that packet losses have occurred includes repeating a) and b) for up to a predetermined maximum number of times. (Emphasis added)

14. A computer program product for transmitting a packet of data from a first computing system to a second computing system, the first computing system and the second computing system being included in a client/server object-based computing system, wherein the first computing system is a server and the second computing system is a client, the computer program product comprising:

computer code for identifying the packet of data using the first computing system, wherein said second computing system is listening, wherein the packet of data includes data which represents an object in the client/server object-based computing system, the object being identified as an object for which the second computing system has an interest in receiving updates, the object including data and functionality;

computer code for attempting to send the packet of data from the first computing system to the second computing system;

computer code for determining when the packet of data is received by the second computing system;

computer code for sending an acknowledgment from the second computing system to the first computing system when it is determined that the packet of data is received by the second computing system, the acknowledgement being arranged to indicate that the packet of data is received by the second computing system; and

a computer readable medium that stores the computer codes. (Emphasis added)

18. A computer program product for transmitting a packet of data from a first computing system to a second computing system, the first computing system and the second computing system being included in a client/server object-based computing system, wherein the first computing system is a server and the second computing system is a client, the computer program product comprising:

computer code for attempting to send the packet of data from the first computing system to the second computing system, wherein said second computing system is listening, wherein the packet of data includes data which represents an object in the client/server object-based computing system, the object being identified as an object for which the second computing system has an interest in receiving updates, the object including data and functionality;

computer code for determining when the packet of data is received by the second computing system;

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computer code for identifying the packet of data as being successfully sent when it is determined that the packet of data is received by the second computing system;

computer code for assuming that packet losses have occurred when it is determined that the packet of data is not received by the second computing system, wherein assuming that packet losses have occurred includes computer code for re-attempting to send the packet of data from the first computing system to the second computing system and computer code for determining when the re-attempt to send the packet of data is successful for up to a predetermined maximum number of times; and

a computer readable medium that stores the computer codes. (Emphasis added)

34. A method for transmitting a packet of data from a first computing system to a second computing system, the first computing system and the second computing system being included in a client/server object-based computing system, wherein the first computing system is a server and the second computing system is a client, the method comprising:

identifying the packet of data using the first computing system, wherein said second computing system is listening, wherein the packet of data includes data which represents an object in the client/server object-based computing system, the object being represented in an object list in the first computing system, the object list arranged to include objects that are to be updated, and the object also being represented in a filter tree which is arranged to identify objects that the second computing system has an interest in, the object including data and functionality;

attempting to send the packet of data from the first computing system to the second computing system;

determining when the packet of data is received by the second computing system; and

sending an acknowledgment from the second computing system to the first computing system when it is determined that the packet of data is received by the second computing system, the acknowledgement being arranged to indicate that the packet of data is received by the second computing system. (Emphasis added)

As discussed above, Lathrop, Barker and Ma, singly and in any permissible combination, fail to teach or suggest the transmission of objects (in an object-oriented computing system), where the objects include data and functionality, as claimed by the Applicants. Therefore, the Applicants respectfully submit that independent claims 1, 9, 14, 18 and 34 fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder.

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Dependent claims 2-4, 6, 10-13, 15-17 and 19-20 depend, either directly or indirectly, from claims 1, 9, 14 and 18 and recite additional features. As such, and for at least the same reasons set forth above, the Applicants submit that claims 2-4, 6, 10-13, 15-17 and 19-20 are also not made obvious by the teachings of Lathrop in view of Barker and further in view of Ma. Therefore, the Applicants submit that dependent claims 2-4, 6, 10-13, 15-17 and 19-20 also fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder. Accordingly, the Applicants respectfully request that the rejection of claims 1-4, 6 and 9-20 under 35 U.S.C. § 103 be withdrawn.

B. Claim 5

Claim 5 stands rejected as being made obvious by Lathrop in view of Barker and Ma and further in view of the Whalen et al. patent (United States Patent No. 5,948,066, issued September 7, 1999, hereinafter "Whalen"). The Applicants respectfully traverse the rejection.

In particular, the Examiner's attention is respectfully directed to the fact that Whalen, like Lathrop, Barker and Ma, fails to teach, show or suggest the novel invention of re-attempting to send, by a server in a client/server object-based computing system, a packet of data including data that represents an object in the system to a client in the system, where the object includes data and functionality, as claimed by the Applicants. Therefore, Whalen does not bridge the gap in the teachings of Lathrop, Barker and Ma with respect to claim 1. Accordingly claim 1 is not made obvious by the teachings of Lathrop in view of Barker and Ma and further in view of Whalen.

Claim 5 depends directly from claim 1 and recites additional features therefor. As such, and for at least the same reasons set forth above, the Applicants submit that claim 5 is also not made obvious by the teachings of Lathrop in view of Barker and Ma and further in view of Whalen. Therefore, the Applicants submit that dependent claim 5 also fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder. Accordingly, the Applicants respectfully request that the rejection of claim 5 under 35 U.S.C. § 103 be withdrawn.

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II. CONCLUSION

Thus, the Applicants submit that all of the presented claims fully satisfy the requirements of 35 U.S.C. §103. Consequently, the Applicants believe that all these claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring the maintenance of the final action in any of the claims now pending in the application, it is requested that the Examiner telephone Mr. Kin-Wah Tong, Esq. at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

1/15/07


Kin-Wah Tong
Reg. No. 39,400
(732) 530-9404

Patterson & Sheridan, LLP
595 Shrewsbury Avenue
Suite 100
Shrewsbury, NJ 07702